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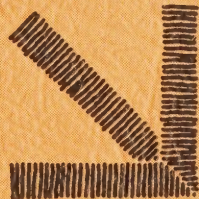
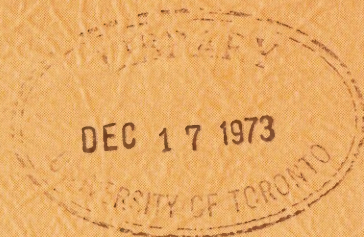
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# DEVELOPMENT CHOICES IN S.W. ONTARIO

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Reflections on the Development Choices  
of South-Western Ontario



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I

This is one of the most foolhardy and most important adventures on which I have ever embarked. Demonstration of the first point needs no elaboration--playing god, particularly on a tight schedule, has its pitfalls. The second assertion has both a subjective and objective basis. As a resident of this great province, I belong to the generation not yet old enough to be venerable, which once enjoyed swimming in the clean water of Lake Ontario, which knew The Queen Elizabeth when it could still pass as a parkway, and Saltfleet before it became a nightmare, and which could visit California without reaching for a gas mask. As a student in the field of community planning, I have noted that the documentation of environmental trends in North America indicates overwhelmingly a record of deterioration. The lesson writ very large is that generally North American society has not been able to cope with the dual forces of population growth and urbanization. The recently published American report of the National Committee of Urban Growth Policy, pin-points a set of what it calls dangerous flaws in the urban pattern:

- (i) The American metropolis is monumentally ugly--"the visual environment remains the nations great cultural blind spot".
- (ii) Urban growth has been decentralized in a functional sense, but not in a spiritual sense of recreating in the suburbs the intensity, diversity and cultural richness associated with the core city.
- (iii) The process of spontaneous urbanization by which the metropolis has been formed is both wasteful and destructive of natural resources--"land speculation has become a major industry".
- (iv) Residents of the metropolis do not share equally in its choices and opportunities.



- (v) The map of the metropolis is a crazy quilt of political jurisdictions-- "problems are handled piecemeal, rather than in relation to each-other".
- (vi) The cities are financially unable to cope with their problems and are on the brink of crisis.<sup>1</sup>


It is not suggested that these observations apply in any literal way to the area which is the subject of this paper. The ground rules of this seminar suggest that we are dealing with the most urbanized part of Ontario (and Canada)--in Ray's terms, the Canadian heartland, which lies south and south-west of the Kawartha Lakes and the morainic hills that separate the plains of southern Ontario from the Canadian Shield. It is the familiar land mass lying between Lakes Ontario, Erie, and Huron, which from a rocket eye's view assumes a peninsular shape. The area encompasses the six economic regions--Central Ontario, Georgian Bay, Midwestern Ontario, Niagara, Lake Erie, St. Clair, and the western part of Lake Ontario. It is inhabited by over five million people and at a moderate growth rate may have well over eight million people by the end of the century.

Viewed from a broad continental point-of-view this area assumes the character of the northern frontier of an urbanized belt extending from Chicago to Boston, and from Boston to Norfolk, Virginia. It is a frontier, however, not only geographically but also in the cultural sense of still providing an opportunity to deal effectively, in spite of a backlog of problems, with the development of our environment. This is partly the heritage of enlightened policies--and we have had some, and partly the consequence of our demographic position. Some measure of our opportunity is suggested by comparative population data of Ontario and the ten most populous states extending from Illinois to the Atlantic seaboard. While

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<sup>1</sup> Canty, Donald A., Editor: The New City, National Committee on Urban Growth Policy, Praeger, N. Y., Washington, London, 1969.





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the rate of population increase in Ontario since the turn of the century (about 300%) has kept pace, there is a substantial difference in population density--the pressure of people on the land. The density per square mile in Ontario is about 17 for the Province as a whole and 137 for Southern Ontario, compared to a range for the ten states that extends from 108 for Indiana to 774 people per square mile in New Jersey, with a mean figure for the group of about 270.<sup>2</sup>

There is of course no cause for complacency in these comparisons. We have for sometime been cast in the role of an extension of the American urban system--most recently by Constantinos Doxiadis, on behalf of a great urbanizer Detroit Edison, who sees our study area as a kind of double hinge: linking Chicago to Montreal and Quebec City as part of the "Great Lakes Megalopolis"; and through the Niagara frontier linking the midwest to the "eastern megalopolis" along the Atlantic coast.<sup>3</sup> So to the geopolitician southwestern Ontario becomes a link in vast continental corridors along which the major forces of North American civilization, both good and bad, will flow. Ray has demonstrated the population predominance of southwestern Ontario and its role as a development axis between Toronto and the United States manufacturing belt.<sup>4</sup>

This is the context, as I see it, of this paper and this seminar. We have an opportunity to shape the urban-regional environments of Ontario in response to our needs and desired life styles; and we can do so with the environmental advantages and built-in hindsight of our "frontier"

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<sup>2</sup> Encyclopaedia Britannica, Volume 16, William Benton Publisher, Toronto, 1964, pp. 797, 798 and other volumes for the States of Illinois, Indiana, Michigan, Ohio, Pennsylvania, New York, New Jersey, Massachusetts, Connecticut, and Rhode Island.

<sup>3</sup> Constantinos A. Doxiadis, The Emergence and Growth of an Urban Region, Volume I. The Detroit Edison Company, 1966. Part Two.

<sup>4</sup> D. Michael Ray, "The Growth and Form of Urban Centres in Southwestern Ontario", Ontario Economic Council, March, 1970, pp. 7 and 17, 18.





position. But the pace of our development, and our continental position, suggests that if we do not chose to do so as a deliberate and sustained public policy, that the opportunity will be foreclosed and our Province as a place to live may fall far short of our aspirations.

It is the purpose of this paper to begin, perhaps to begin again, to outline how we might build, brick by brick, a sound structure for the development of the most urbanized part of Ontario.

## II

The inspirers of this seminar have suggested that I take as my point of departure the second report of the Metropolitan Toronto and Region Transportation Study, the report called Choices for a Growing Region.<sup>5</sup> The report dealt with urban development options to the year 2000 for a defined greater Toronto region, extending about one hundred miles along the Lake Ontario shoreline, and extending north to include Guelph and Barry and Port Perry--an area corresponding roughly to the Central Ontario economic region. This difference in scale between MTARTS and the study area of this O.E.C. seminar suggests to me that MTARTS is relevant mainly as an approach or a philosophy and that it will not be fruitful to extend an intra-regional concept to what is essentially an inter-regional issue. I will not hesitate, however, to incorporate some of the results of MTARTS where they make sense in an inter-regional context.

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<sup>5</sup>Choices for a Growing Region. Metropolitan Toronto and Region Transportation Study. Department of Municipal Affairs, Toronto, November, 1





Considering MTARTS as an approach to urban development three observations have to be made: (i) the first is that it is in the normative tradition of planning--long range goals were formulated which shape the form and structure of the development pattern; these and the criteria they suggest, became the basis for evaluating the pattern emerging from present trends; the emerging pattern was altered or corrected to bring it in line over a period of years with the composite goals concept; (ii) the second observation is that MTARTS was futurist in outlook in the style of the new group of social forecasters, led by Daniel Bell, who make conjectures about the future based on an interpretation of technological, economic and social trends and their interactions.<sup>6</sup> In the case of MTARTS there was, not surprisingly, a special interest in future changes in transportation technology and its impact on the organization and relationship of urban activities in the region. Increased mobility and reduced time-distance--"the geographical shrinking of the regions" was seen as the overriding, inescapable and opportunity-giving fact.<sup>7</sup> The third observation about the MTARTS approach is that it was guided by a concept of urbanism, which has its roots in Aristotlian humanism--people come together in cities for security but stay for the good life; its contemporary expression in Mumford's emphasis on the City as the matrix, through heightened opportunities for contact and interaction for personal fulfillment and cultural achievement;<sup>8</sup> and its operational theory in the concept of the urban field--the functional region formed by the collectivity of individual life spaces, which tend to expand with increasing transportation mobility.<sup>9</sup> The report heralds the emergence of a "regional

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<sup>6</sup>O. D. Duncan, "Social Forecasting: The State of the Art", The Public Interest. Fall, 1969, pp. 105-109.

<sup>7</sup>M.T.A.R.T.S., op. cit., pp. 34.

<sup>8</sup>Lewis, Mumford, The Culture of Cities, Harcourt, Brace and Company, New York, 1938, pp. 480-482.

<sup>9</sup>John Friedmann, and John Miller, "The Urban Field", Journal of the American Institute of Planners, XXXI, November 1965.





city" in which the strains of transportation might be overcome, permitting the city to perform its unique role--providing "an attractive and coherent environment for the development and advancement of its people", and "maximizing of opportunities for a wide range of employments and pleasures".<sup>10</sup>

The application of the MTARTS methodology to southwestern Ontario will be attempted in this paper only illustratively and inferentially. The question of goals, of social forecasting, and the guiding concepts of urbanism and regionalism require reinterpretation for the larger sub-provincial scene. Each of these will be regarded as inputs to a development structure for southwestern Ontario.

Considering the size, urban-regional structure, and location of our study area, the goals that we enunciate should have three main characteristics: They should be informed from the point-of-view of broad provincial, if not national interests; they should be concerned with the inter-regional pattern of development--what kind of development mosaic is formed by the regions when they are looked at as a network?; and they should be politically legitimized. Fortunately for us as citizens and seminarians, we have such a statement of broad goals in Design for Development, Phase I, introduced to the Legislature of Ontario in April, 1966; and added to, in a second phase, dealing with the reorganization of local government, in November, 1968.<sup>11</sup> For present purpose I will very briefly, recall the main features of the initial broad policy statement. It can be condensed into eight points. The first three are general and fundamental: (1) Provincial responsibility, which will be complementary to the private sector, for guiding, encouraging and assisting the orderly and rational development of the Province; (2) Provincial policies to achieve the fullest and most efficient use of the human and natural resources,

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<sup>10</sup>M.T.A.R.T.S., op. cit., pp.2.

<sup>11</sup>Design for Development, Statement by the Honourable John Robarts, Prime Minister of Ontario. Legislature of Ontario. Toronto, April, 1966.

Design for Development, Phase Two, Statement by the Honourable John Robarts, Prime Minister of Ontario. Legislature of Ontario. Toronto, November, 1968.



and to expand social and economic opportunities in each region;<sup>12</sup> (3) regional and resource policies that strike a balance between development, and conservation of "the aesthetic qualities of the environment".<sup>13</sup> The remaining five goals are instrumental; (4) to direct and coordinate the preparation and implementation of regional development plans for ten economic regions; (5) to gear the Provincial budget towards development goals--"by distributing the thrust of Ontario's \$3 billion budget efficiently and selectively throughout the Province".<sup>14</sup> (6) to coordinate the programs of provincial departments and agencies towards achieving the broad objectives of Provincial development policy; (7) the gradual establishment of common administrative and planning regions; and (8) the involvement of citizens and organizations and industries at the regional level in the regional development process. I suppose one could add as a ninth feature the whole rationale for regional government in Ontario, which is the subject of Phase Two--and which is somewhat beyond the scope of this paper.

Following through the MTARTS approach, the next step is to juxtapose goals and social change--what kind of world are we confronted with? The relevance of this kind of forward thinking is suggested by the acceleration of the impact of technological change. The time interval between the first discovery of an innovation and the recognition of its commercial potential has decreased from 30 years in the period up to 1919, to 16 years in the inter-War period, to 9 years in the last 25 years.<sup>15</sup> The time machine

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<sup>12</sup> The Honourable C.S. MacNaughton, The Ontario Program for Regional Development. Department of Treasury and Economics, November 4, 1969, pp.1

<sup>13</sup> Ibid, pp. 1

<sup>14</sup> The Honourable C.S. MacNaughton, The Key to Ontario's Potential. Address to the Midwestern Ontario Regional Development Council, November 20, 1969.

<sup>15</sup> Daniel Bell, "Notes on the Post-Industrial Society", The Public Interest, No. 6, Winter, 1967, pp.25.





is speeding up and so must we. I am not going to presume to make an independent analysis of trends. Instead I wish to sketch out a social forecast model--the model of post-industrial society, that has been associated with the sociologists and social psychologists, Daniel Bell and Eric Trist, and to some degree, the economists Bertram Gross and John Galbraith; and I will do so, like all good utopians, by selecting those aspects of the model which seem to be particularly environment-sensitive. I use "environment" here and throughout the paper in an all-encompassing sense, including the natural environment of landscape and natural resources; the biological environment of the ecosystems of land, water and air; the communal environment, the system of communities and their functions, size, hierarchy, relationships and contacts; and the urban-regional environment, which includes those aspects of other environments which shape the form and structure of regional settlement.<sup>16</sup> Viewed inter-regionally, locational and functional issues move into the forefront and, as Blumenfeld has pointed out, environmental and economic issues merge.<sup>17</sup>

The point of departure of the post-industrial model is to seek out "certain characteristics of the future in the texture of the present". The present is found to be dominated in all advanced industrial societies--and who can doubt after Ray's exposition that we are not in the main stream, by an irreversible process of turbulent change, characterized by increasing complexity, interdependence, accelerating but uneven rates of change and an

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<sup>16</sup> This concept of environment is set out in the following:

L. O. Gertler, (Director and editor), The Concept of a Regional Development Plan, Planning and Resources Institute, Univerisity of Waterloo, February, 1970. Volume I, Appendix I, and Volume II, pp. 42-44.

<sup>17</sup> Hans Blumenfeld, "Regional Planning", Plan Canada. Journal of the Town Planning Institute of Canada, July, 1960, pp. 124-124.





enormous expansion of the total environmental field.<sup>18</sup> This change is well advanced and is leading to a society with radically different structural features in its technology, power base, economy, occupational and educational structures, leisure and employment, family structure and environmental context. Scientific thought has moved from an empirical to a theoretical basis. This permits the "codification of knowledge into abstract systems" capable of application to a wide variety of complex circumstances.<sup>19</sup> The computer and its information superstructure is the technological base of the new knowledge. The centrality of theoretical knowledge leads to the centrality of the professional-scientific establishment, which challenges the power of the financial-industrial establishment. The technostructure becomes an important new political "constituency" which begins to make an impact on socio-political goals in the direction of a high quality standard of living, in which environmental components are much to the forefront.<sup>20</sup> This constituency is assuming a broader and broader base, expressed in the ascendance of the service sector, of the learning force over the work force, and of leisure over labour. Educational and recreational resources are at a premium. The post-industrial society is characterized by high productivity, but to sustain a high level of production and consumption requires an increasingly complex infrastructure. Expenditure on public goods such as transportation, is beginning to exceed the cost of private goods. The high degree of city-centered mobility expands the life space and the urban field; while the combination of information and energy technologies provides the communications base for large inter-organizational and inter-metropolitan clusters--widely dispersed units can be held together in a single system and location of economic activities or even functions within single enterprises enjoy a greater number of locational options. Rural environments are part of or interact with the urban field.

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<sup>18</sup> Eric Trist, "Urban North America: The Challenge of the Next Thirty Years", paper to Annual Meeting and Conference of the Town Planning Institute of Canada. Minaki, Ontario, June, 1968, pp. 1-11.

<sup>19</sup> Daniel Bell; op. cit., pp. 28.

<sup>20</sup> Ibid, pp.35.



The generally stepped up pace of society's metabolism places us on the brink of exceeding safe thresholds of pollution and natural resources consumption.

While most of the foregoing structural traits are very much part of the present scene, the theorist of the post-industrial society, sees a lag in the development of the cultural values, organizational philosophies and ecological strategies necessary to cope with increasing complexity, interdependence and uncertainty. For example, our ecological strategy must move from response to crisis to prevention of crisis, from specific measures such as applying pesticides, to comprehensive measures taking into account reverberations throughout the ecosystems, and from short range ameliorative planning to long range planning based on social goals. In fact the post-industrial society is described as a planning society. The complexity of society, its rapid change, the scale of capital investment in large corporate organizations and the increasing importance of the public sector and our environmental vulnerability means that we cannot, or dare not, rely exclusively on "auto-regulative" processes. Planning becomes the means of achieving "a new type of social balance".<sup>21</sup> With this perspective, the forward-looking comprehensive, integrating character of Design for Development makes it truly a post-industrial phenomenon.

The third element in the MTARTS approach, the enunciation of an overriding concept of the city, becomes in our study area of southwestern Ontario, the need to enunciate a concept of regionalism, philosophically speaking rather than as a network of defined boundaries. In a number of respects the notion of the "urban field", referred to above, serves very well as such a concept, within a provincial setting. It is based on the very contemporary phenomenon of the centrifugal thrust of urban life space. If the entire region is becoming, as has been suggested, the stage for a new highly mobile life style, then it is very likely that the urbanite will develop a wider community of interest, based on identification with the area that satisfies his diverse spatial and environmental needs. Fried

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<sup>21</sup> Eric Trist, op. cit., pp. 6, 12-18.





and Miller go so far as to state that the urban field "will constitute the new ecological unit of America's post-industrial society".<sup>22</sup>

There is, however, a contradiction in the urban field concept which cannot be escaped. There is a presumption that the forces of expansion will go on and on due to a succession of improved transportation facilities--reference is made to a time-space continuum, and that these forces will constantly reshape, and change the size, form and content of the urban field. Can a regional development pattern be built on such shifting sands? This dilemma indicates the need to clarify the role of regionalism in provincial development. For the purpose of this statement, it is suggested that the relationship of the human community to its environment, taking environment in the broad sense defined earlier, is the nub of the regional issue--or in other words we are dealing with "the ecology of the human community". Since this is the case, the concept of regionalism must be one which makes it possible for the people of the area to struggle towards an approximation of homeostasis--a balance of conditions consisting of the unique location, climate, resources, landscape, population, traditions and culture of the region, as well as of the broad social forces of change characterized by the post-industrial model. From this viewpoint, then, transportation or other aspects of technology are not seen as independent variables, but as powerful instruments which can be manipulated to achieve society's consensual purposes. The regional concept aspired to may be called the "urban ecological field". In putting forward this point-of-view the author is aware of the proposition that the relevant environmental context for contemporary urban man is the entire globe--"the city is a massive communications switchboard--a localized node within international networks", but I remain unconvinced.<sup>23</sup>

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<sup>22</sup> Friedmann and Miller, op. cit.

<sup>23</sup> Melvin M. Webber, "The Post-City Age", Daedalus, Fall, 1968, pp. 1096-1097.





### III

At this juncture, it will be useful to summarize and interpret and draw out the implications of the line of thought in this paper.

Southwestern Ontario is Canada's urban-industrial heartland, and part of a continental North American system.

That system is highly dynamic economically, but its urban environment functionally, aesthetically, politically and ecologically seems to be heading for a crisis.

The position of southwestern Ontario on the edge of the system, its vast resources hinterland, comparatively favourable man-environment position, and the impact of public policies--still leaves us a substantial opportunity to influence its development pattern and environmental quality.

One methodology for undertaking this task is suggested by MTARTS--Choices for a Growing Region. That approach was normative and futurist and guided by a particular philosophy of urbanism.

At the larger scale of southwestern Ontario suitable inputs for each of these elements in the approach are, (i) the goals of Design for Development, (ii) the post-industrial model of society, and (iii) a regional concept called the "urban ecological field".

The application of all of the foregoing would lead to the following scenario:

The Province will establish the development and environmental parameters for Southwestern Ontario.

These parameters will include:

- (1) the identification of urban ecological fields.
- (2) targets at ten year intervals of employment and population for each field
- (3) province-wide resources and environmental policies, such as the conservation of the most productive agricultural lands, the Niagara Escarpment and the recreational corridors formed by the major valleys and shorelines, and strict pollution control;
- (4) provision of trunk transportation facilities required for long-distance travel, and
- (5) generally the selective distribution of Provincial activities, through the budgeting process in a way that will support the general development policy.



The time horizon for this kind of parametric planning will be long range--about 50 years.

Within this Provincial framework, regional governments and regional development councils will be articulated into a single planning system with responsibility, under legislation, to make the fundamental policies and decisions concerning how they wish to organize the activities and land uses in their areas--spatially and environmentally.

To assist the regions the Province will, (1) provide research facilities; (2) organize a Province-wide, regionally-oriented data system; (3) issue studies on such subjects as long range technological, demographic, social and economic trends, on criteria for selecting growth centres, and on techniques of "new city" planning, (4) undertake broad indicative planning which will bring to light certain possibilities inherent in the Provincial economy, such as the creation of new development corridors of the type proposed in MTARTS.

While much of the foregoing emerges from policies and programs that are already in effect or under consideration the statement has been kept general, to better focus on the conceptual aspects of the approach without raising issues related to responsibilities and jurisdiction, and because the time horizon, 50 years, is longer than normally prevails, operationally, and new needs and possibilities claim attention.

Within the indicated planning framework, the application of the development principles inherent in the post-industrial forces and in the concept of the urban ecological field can best be demonstrated graphically. But before proceeding to that it is necessary to identify a set of general influences on the location and form of urban growth, which have been indicated by the Athens Centre of Ekistics. These are in order of importance, (i) the attraction of existing urban centres, (ii) the pull of major transportation routes, (iii) the recreational and aesthetic appeal of lakes, rivers, etc. and other places of scenic beauty, (iv) open plains for extensive uses such as manufacturing and large institutions, (v) the availability of substantial fresh water, and (vi) moderate climate.<sup>24</sup>

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<sup>24</sup> C. A. Doxiadis, "Ecumenopolis: Tomorrow's City", Encyclopaedia Britannica, Book of the Year, 1968, William Benton, Toronto, 1968: pp. 26, 27.





These six factors are plotted on the urban influences map of southwestern Ontario. One clear and predominant observation emerges, and that is the south-southwestern bias of these influences. Two of the factors, recreation resources in the Shield, and Georgian Bay water exert some attraction to the north, but these operate in isolation from the two major urban growth influences: the belt of cities, and the main transportation line.

A simplified map of major transportation routes, combining road and rail, suggests the highly monolithic character of our trunk system. Essentially, the single east-west trunk must serve as an international route, the major inter-regional link in southern Ontario, collector of all local traffic from north and south, distributor of peak recreation traffic, urban by-pass, and in some cases, urban street.

It is not at all surprising that this concentration on the single transportation corridor leads to the development of a predominant urban corridor system--as Russwurm has recently documented. Analysing land use, functions and flows between Toronto and Stratford, he concludes that the combined effect of metropolitan dominance and the concentrating tendency of an urban corridor system will increasingly cause a blanketing dominance of Metro Toronto over all of southwestern Ontario, and physical development will take the form of "a continuous conurbation".<sup>25</sup>

The urban form of about 2030 is suggested by the trends map, illustrating the long range tendency of unguided urban development--or development guided exclusively by a local planning mechanism. The urban area is shown at a scale of development which is approximately 3% per

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<sup>25</sup> L. H. Russwurm, The Development of An Urban Corridor System, Planning and Resources Institute for Regional Development Branch, Ontario, pp. 245-248



annum, resulting in three-fold expansion of urban development in about sixty years. Generally urban growth would fill in the "golden horseshoe" from Oshawa to Niagara Falls and merge the "golden Horseshoe" with the "golden triangle" of Kitchener-Waterloo-Guelph-Preston-Galt. This merging is likely to be given some impetus by the location of a new major airport northwest of Toronto. Brantford would be assimilated into the Hamilton orbit and the dismal history of Great Lakes shoreline sprawl would be repeated at the future nodes of steel production on Lake Erie at Nanticoke, where Stelco is scheduled to start production in 1973, and at Port Burwell where Dofasco will initiate a new cycle of growth in 1995. For the rest, London and Windsor will extend into their urban shadow areas and smaller secondary development corridors may emerge between Sarnia and Chatham and extend to Lake Erie, and from St. Catharines to Port Colbourne along the Welland Canal.

At this juncture in the development of urban studies we know enough about the comparative characteristics of urban agglomeration and urban dispersal to suggest that generally the advantages of the first are economic and of the second, environmental. In considering an alternative development choice for southwestern Ontario, the challenge may be seen as one of finding a way of combining the advantages of both.

Returning to the scenario of long range planning policy, we would begin our effort to reconstruct the urban development pattern of southwestern Ontario by a policy decision to conserve limited and fundamental economic and landscape resources. The first is agricultural land.

The map of agricultural reserves is based on the agricultural regionalization map of the Ontario Economic Atlas, which grades agricultural land on a township base by the aggregation of 25 variables related to capital input, land use and production characteristics.<sup>26</sup>

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<sup>26</sup> W. G. Dean (ed.) Economic Atlas of Ontario. University of Toronto Press, Toronto, 1969, Plate 69.





The analysis is a step beyond agricultural capability to something approximating Hill's concept of agricultural suitability--the economic viability of land taking into account production, market and cultural factors. The first two grades of a four-grade classification have been selected to give emphasis to the very limited areas of highest suitability. Since the analysis is based on present activity, the areas of most intense urbanization are built into the classification and bias the grading of the lands in question towards low values. By placing grade 1 and 2 lands in reserve, not all urban development would be excluded, but the onus will be placed on a private developer or a public agency to demonstrate the benefits of conversion to urban use. This would be a safeguard against such thoughtless and imprudent policies as the contemplated extension of St. Catharines several miles into the healthy agricultural economy of Louth township, on the basis of sewer economics alone.

The other major resource reserves are the recreation corridors formed by the Niagara Escarpment, the shoreline of the Great Lakes, and the valleys of six major watersheds: the Thames, the Grand, the Sydenham, the Maitland, the Saugeen, and the group of small waterways draining southeastward from the Niagara Escarpment towards the Toronto region. The concept of linear recreation corridors has been worked out by Lewis in Wisconsin and the implementing program is in high gear.<sup>27</sup> In addition to forming a network of outdoor recreation resources in an era of rising leisure aspirations, such corridors would serve a number of additional worthwhile functions: preservation of landscape character, water drainage, aquifer recharge, air circulation, ecological migration, and as an element in urban design. Implementing this concept will require the systematic use of scenic, access and management easements, along the lines set out in the Niagara Escarpment Study.<sup>28</sup>

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<sup>27</sup> Philip H. Lewis Jr., "The Environmental Corridor", Scenic Easements in Action, Conference Proceedings, University of Wisconsin, 1966.

<sup>28</sup> Leonard O. Gertler (coordinator): The Niagara Escarpment Study. Regional Development Branch, Department of Treasury and Economics, Toronto, 1969, pp. 7, 8, 15-18, 84-89



In trying to bring together the strands of this paper into a concept of development for southwestern Ontario, projected quite far into the future, I am reminded of Voltaire's remark: "let a man give me one sentence, and I can hang him". What I will put forward is extremely general, tentative and visionary. At best it will serve as an illustration of a line of attack on the problem before us.

As I have already indicated a key feature of the concept will be the "urban ecological field". Since one of the underlying ideas of the field is that it incorporate a regional community of interest, a suitable starting point in the delineation of the field are the functional regions, defined by Carol on the basis of central place-tributary area contacts for shopping and services.<sup>29</sup> The regions shown on the map are for middle order tributary areas, and are a good approximation of the patterns of association between town and county that have grown up since the automobile became dominant.

The areas described as "urban ecological fields" on the Long-Range Development Concept South Western Ontario map do not conform to these functional regions. The best way to explain the difference and the basis for the fields is to describe the major structural features and then deal with some of the specific urban ecological fields to illustrate the elements from which they are built.

The major structural feature of the long range development pattern, is a second major east-west transportation facility, extending from Chicago across Michigan and Lake Huron, through Sarnia to Goderich, and then north-westward to Midland, and westward along the edge of the northern recreation hinterland, making contact with tourist centres of Gravenhurst and Bancroft and extending to Ottawa, Montreal and Quebec City. The rationale for this second transportation corridor is inherent in continental population and

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<sup>29</sup> Hans Carol, Geographic Identification of Regional Growth Centres and Development Regions in Southern Ontario. Report to Regional Development Branch, Department of Economics and Development, Ontario, 1966, pp. 17-23.





travel patterns and in the impact of the Toronto dominated urban corridor systems. Within the time-span of half a century, the multi-million population increases in the Great Lakes and Atlantic coast urban systems, will result in enormous pressures on the existing route, which can be relieved only at substantial environmental cost, due to widenings, congestion, pollution and so on. We see the process in epitome in the Q.E.W. part of the corridor, where a questionable highway alignment, like original sin, continues to have a far-reaching environmental impact. This points to a second route, which at the suggested location would (i) relieve the pressure on the existing route and serve as a long distance and inter-regional route, (ii) act as a distributor of recreational-tourist traffic, and (iii) provide the basis for a second urban corridor system in south-western Ontario, through the urban corridor dynamics depicted by Russwurm. Places along the line like Sarnia, Goderich, Mount Forest, and Midland would become the key growth centres of the new system.

The suggested facility would not be a mere repetition of existing modes, but on the frontier of the new transportation technology--such as air cushion vehicles for their ability to operate on water and on land. At the present stage of development, however, these have pollution problems. and it must be one of the performance criteria of the new facility that it be pollution-free. An alternative is suggested by the electric-powered magnetically suspended train using superconducting magnets and driven by synchronous linear motors up to speeds of 300 m.p.h.<sup>30</sup>

Other structural features of the concept are:

recreation routes - linking major urban centres along the southern corridor to points along the northern corridor, and extending to Great Lakes shore-lines.

development corridors - which include the Hamilton-Toronto-Oshawa System in the MTARTS Goals Plans I and II; or the Hamilton-Nanticoke corridor to integrate the regional steel economy; the St. Catherines-Port Colborne corridor

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<sup>30</sup> David F. Atherton, "The Magnetic Train: is it the answer for fast intercity travel", Science Forum, Vol. 3, No. 1, February, 1970, pp. 20, 21



developed as an alternative to urbanization in the fruit belt; the London-Port Burwell corridor which would give a metropolitan base to a heavy industry community, and the Midland-Orillia, and Port Hope-Peterborough Corridors.

Centres of various types - including the predominant centres called regional centres, such as London and Windsor, sub-centres of those, and co-centres--centres of virtually equal status such as Sarnia and Chatham, which would be at two poles of a development corridor between the two trunk transportation routes.

The study area would include the following eleven urban ecological fields, and constituent centres:

<u>Field</u>	<u>Centres</u>		
	<u>Regional</u>	<u>Sub</u>	<u>Co.</u>
Niagara	Niagara Falls - St. Catharines	Welland Port Colborne	
Grand-Hamilton	Hamilton - Burlington	Brantford Nanticoke	
London-Erie	London	St. Thomas Port Burwell	
Huron-Erie			Sarnia Chatham
Windsor-St. Clair	Windsor		
Midwestern	Kitchener-Waterloo-Guelph	Galt, Preston Goderich	
Toronto-Central	Toronto	MTARTS sub-regional centres?	
Oshawa	Oshawa-Whitby	MTARTS sub-regional centres?	
South Georgian Bay			Midland Orillia Barrie Collingwood
Kawartha	Peterborough	Lindsay	
Bruce	Owen Sound		

All of the fields with the exception of Windsor - St. Clair, and Bruce are poly-centered, although in the case of Toronto-Central and Oshawa the sub-centres are incorporated into the lakeshore development corridor and are not separately identified.





The character of the urban ecological field can be illustrated by special features of selected fields. For example, the Midwestern field incorporates all of Carol's functional region focused on Kitchener-Waterloo; gives emphasis to creating a strong tri-city regional core as a means of maintaining the integrity of the area as a distinctive region; incorporates and preserves a broad agricultural hinterland for economic reasons and to provide continuity for a pacifist sect that has contributed much to the flavour of the region. The field perpetuates the present link to Lake Huron of the Midwestern economic region because the position of the region, surrounded by the larger competing fields of Toronto-Central, Grand-Hamilton, and London-Erie makes it necessary to broaden the economic base of the region. The urban structural implications of this are indicated in a recent study of the Waterloo Planning and Resources Institute which indicates a triangular set of new development cities, at Stratford, Mount Forest and Goderich.<sup>31</sup> Thus the dominating motif of the Midwestern field is to maintain its regional integrity, economically, culturally and environmentally. In other fields, different elements are important. For example in Niagara the area of the new regional government is accepted as the best framework in which to work out problems which were not tractable at the local level: achieving a balance between urban and agricultural activities, developing an alternative development corridor, preserving the unique landscape and recreational attributes that have been the basis of its magnetic tourist appeal and so on. The Bruce unites in a single field the entire area of high recreational appeal characterized by the Escarpment cliffs, scenic shorelines, wooded areas and unique ecology; and should facilitate the development of the area around that focus. Each field is formed on the basis of a unique mix of historical, environmental, structural and functional elements.

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<sup>31</sup> Concept, Regional Development Plan, Vol. II, op. cit., pp. 32-39.



This cursory and hypothetical sketch of a development pattern is presented without economic validation. Its conceptual justification is found in the conditions of post-industrial society, with its emphasis on resource conservation and pollution control; on high mobility, telecommunication and information systems that support and integrate extensive urban networks; on the location criteria of non-manufacturing activities; on orientation to leisure; and on the transformation of values away from economic criteria towards "a wider social ethos". The concept of a comprehensive, long range Provincial Plan is itself a post-industrial phenomenon.

#### IV

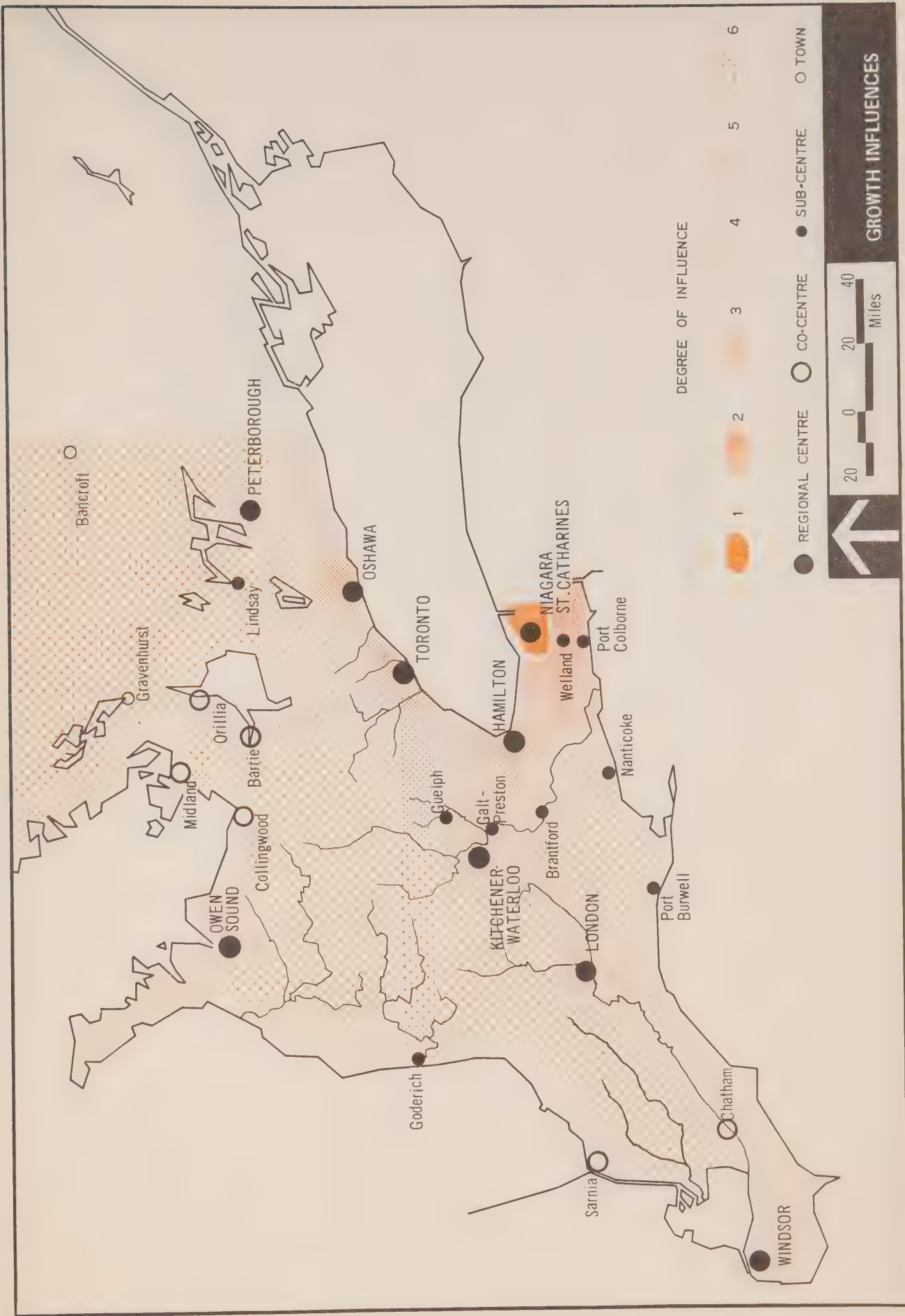
This paper has attempted to provide some clarification of the issues involved in making long range development choices in Southwestern Ontario. Emphasis has been placed on the implications of the heartland position of the area, on the role of fundamental policy goals, on the need to appreciate the social-cultural context within which we plan the future, on the relevance of regional concepts, on the importance of Provincial leadership for setting both environmental and development parameters, and on the urgency of action. On the question of choices it seems that we have to decide what trade-offs we wish to make between urban growth and rustic peace, between concentrated and dispersed economic development, between high incomes and environmental sanity, between excitement and the quiet life. I do not mean to suggest that the choices in the real world are always that sharp--these are the poles of a spectrum, and the question of degree--'how much pollution for how much economic development?' is often critical. In contemplating this, I am reminded of a very distinguished colleague of mine who after a lifetime of writing books and splitting economic hairs--has observed somewhat incredulously, that when it comes





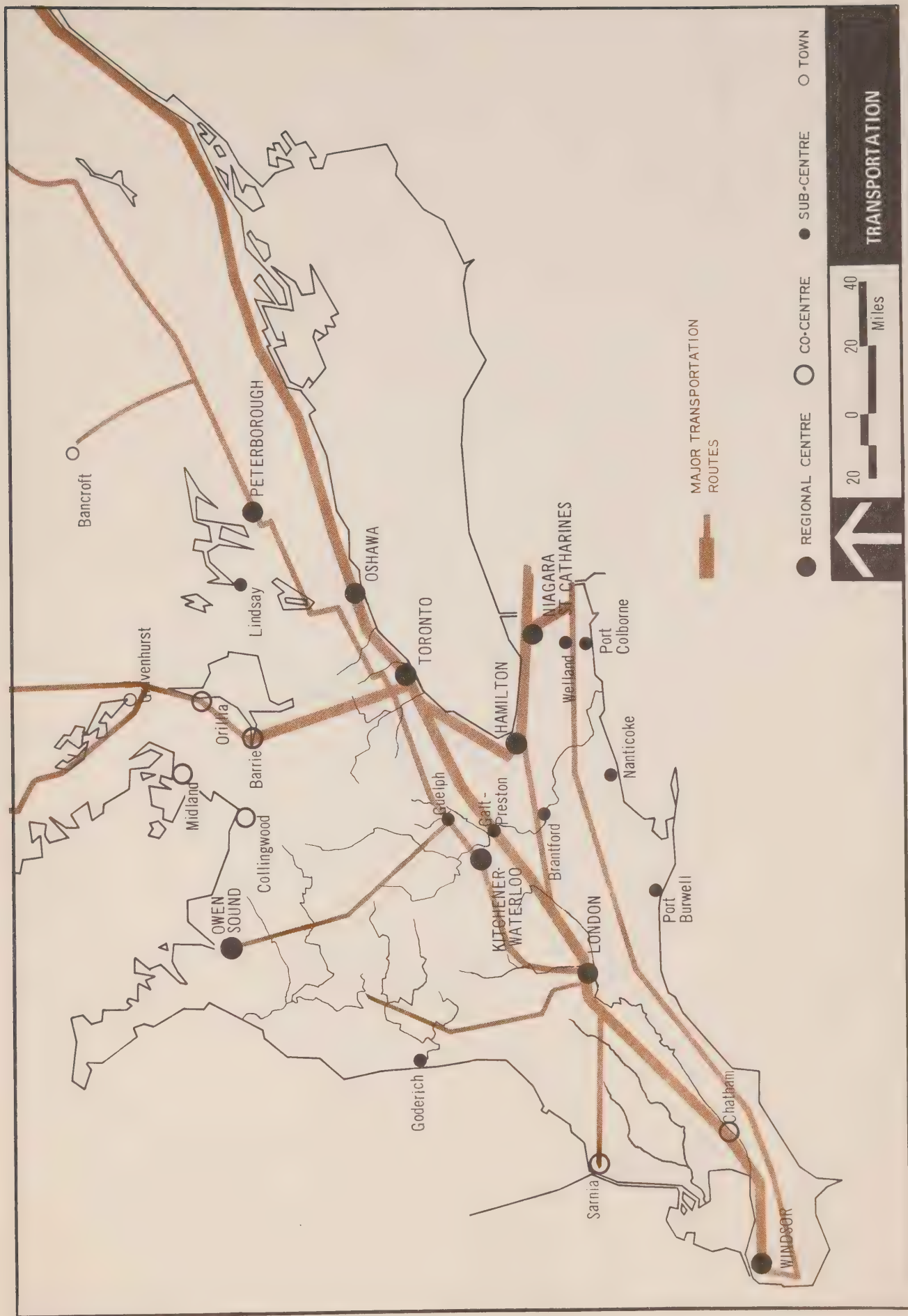
to matters of urban and regional development, the fundamental issue is ultimately an issue of aesthetics. Being the kind of learned man that he is, I know he means this in the Platonic sense of "music and gymnastics". The development choices we have to make are philosophic choices.



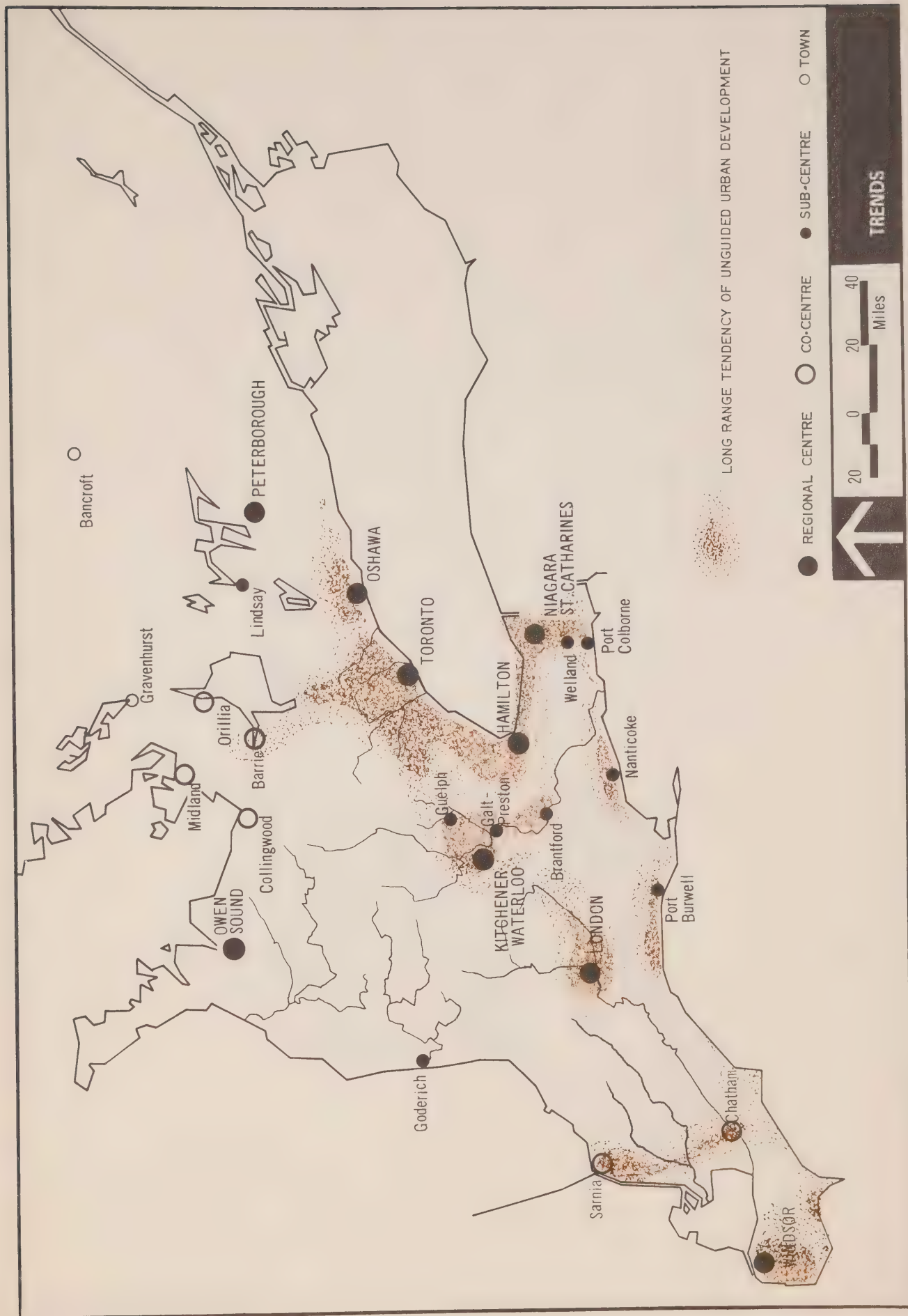






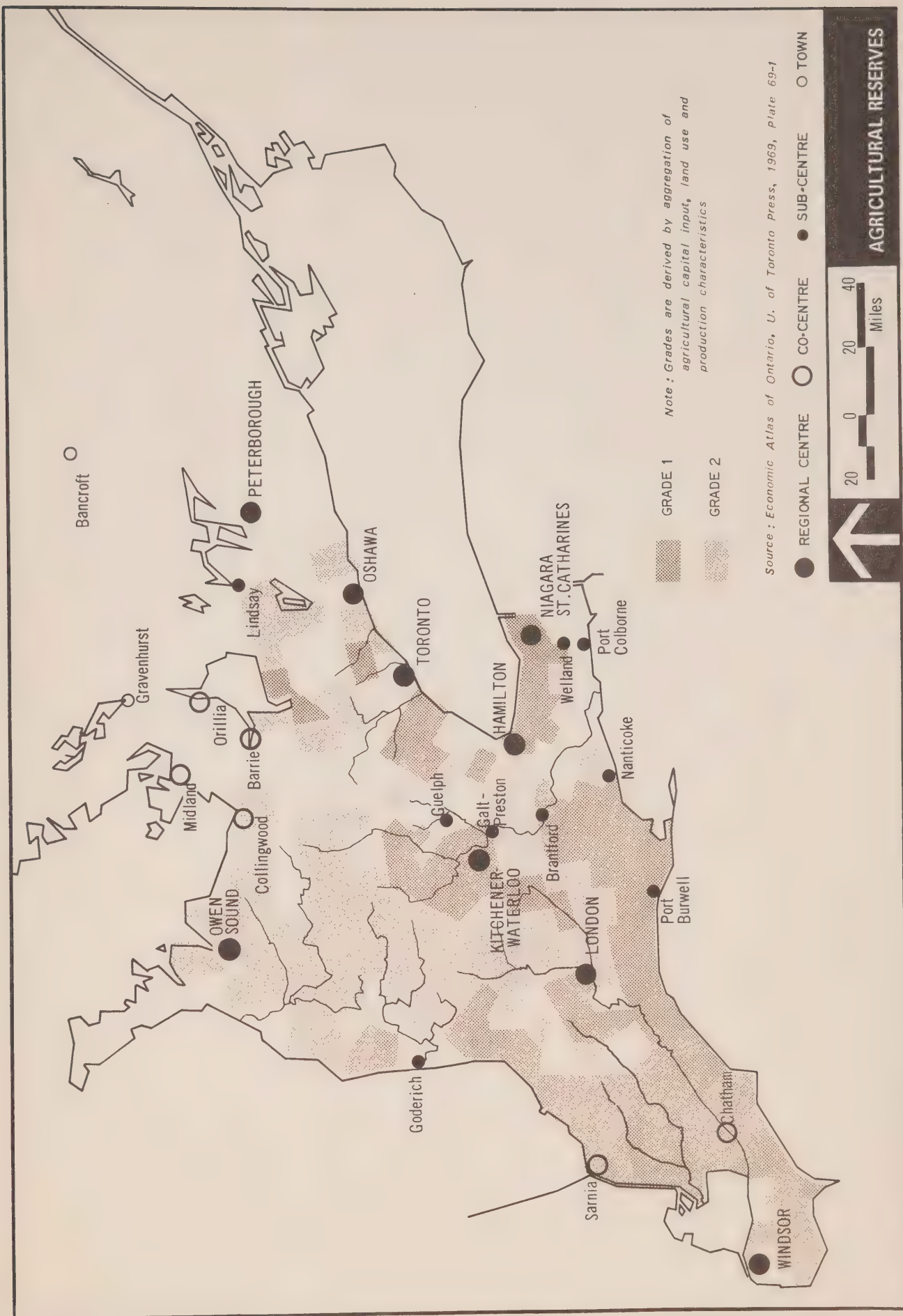
















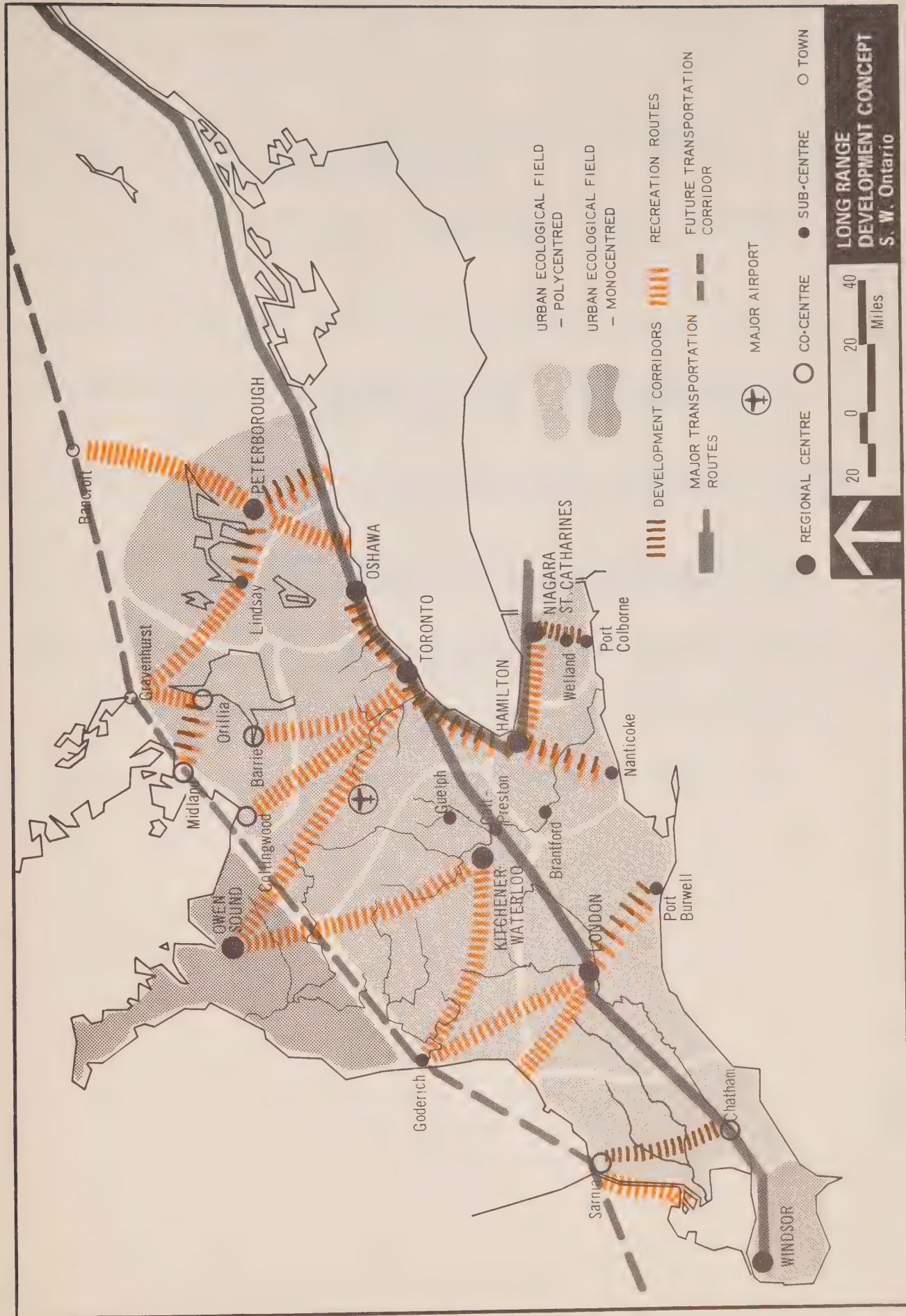






Source : H. CAROL-Geographic Identification of Regional  
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